

Listing of Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (currently amended): A method for treating a surface of a layered polymeric structure suitable for forming a fluid container, the method for treating comprising:

providing a first non-molten polymeric sheet of material;
providing a second non-molten polymeric sheet of material;
positioning the first non-molten sheet or the second non-molten sheet to overlap at least a portion of the other sheet to define an interference zone;

directing a first molten polymeric material into the interference zone to adhere the first non-molten sheet to the second non-molten sheet to form the layered structure; and

texturing an outer surface of the first non-molten sheet or the second non-molten sheet utilizing a chill roll to form a pattern on the outer surface, the pattern being dimensioned to form fluid pathways on the outer surface to assist in removing fluid from the surface.

Claim 2 (canceled).

Claim 3 (currently amended): The method of ~~claim 2~~ claim 1 wherein the second polymeric material is a monolayer structure.

Claim 4 (currently amended): The method of ~~claim 3~~ claim 1 wherein the second polymeric material is a multiple layer structure.

Claim 5 (currently amended): The method of ~~claim 2~~ claim 1 wherein the second polymeric material is selected from the group consisting of polyolefins, ethylene and vinyl acetate copolymers, ethylene copolymerized with carboxylic acids having from 3 to 20 carbons and ester and anhydride derivatives thereof, ethylene and vinyl alcohol copolymers, polyamides, polyesters, polyvinyl vinyl chloride, PVDC and elastomers.

Claim 6 (original): The method of claim 5 wherein the polyolefins are selected from homopolymers and copolymers.

Claim 7 (original): The method of claim 6 wherein the copolymers are selected from copolymers of ethylene and α -olefins having from 3 to 20 carbons.

Claim 8 (original): The method of claim 4 wherein the multiple layered structure comprises a first layer of an ethylene and α -olefin copolymer and a second layer of an ethylene and vinyl alcohol copolymer.

Claim 9 (canceled).

Claim 10 (original): The method of claim 9 wherein the third polymeric material is selected from the group consisting of polyolefins, ethylene and vinyl acetate copolymers, ethylene copolymerized with carboxylic acids having from 3 to 20 carbons and ester and anhydride derivatives thereof, ethylene and vinyl alcohol copolymers, polyamides, polyesters, polyvinyl vinyl chloride and elastomers.

Claim 11 (original): The method of claim 10 wherein the third polymeric material is a polyamide.

Claim 12 (original): The method of claim 11 wherein the polyamide is selected from nylon 6,6, nylon 6, and nylon 6,12.

Claim 13 (original): The method of claim 1 wherein the step of directing a first polymeric material comprises the step of extruding a molten polymeric material.

Claim 14 (currently amended): The method of claim 13 wherein the molten polymeric material is a ~~second~~ polyolefin.

Claim 15 (currently amended): The method of ~~claim 14~~ claim 13 wherein the ~~second polyolefin~~ molten polymeric material is a homopolymer of ethylene.

Claim 16 (original): The method of claim 1 wherein the step of texturing is carried out prior to the step of adhering the first sheet to the second sheet, substantially simultaneously with the step of joining the first sheet to the second sheet or essentially immediately after the step of adhering the first sheet to the second sheet.

Claim 17 (original): The method of claim 16 wherein the step of texturing comprises the step of contacting the first sheet or the second sheet with a surface having a pattern.

Claim 18 (original): The method of claim 17 wherein the surface is provided on a roll.

Claim 19 (currently amended): The method of claim 18 wherein the ~~roll is a~~ surface is provided on the chill roll.

Claim 20 (currently amended): The method of claim 18 wherein the ~~roll is~~ surface is provided on a backup roll.

Claim 21 (original): The method of claim 17 wherein the pattern is carried on two rolls.

Claim 22 (original): The method of claim 18 wherein the pattern extends outward from the surface of the roll.

Claim 23 (original): The method of claim 18 wherein the pattern extends inward from the surface of the roll.

Claim 24 (currently amended): The method of claim 18 wherein the chill roll is metal.

Claim 25 (currently amended): The method of claim 18 ~~wherein the~~ further comprising a backup roll is of rubber, cork, or plastic.

Claim 26 (currently amended): The method of ~~claim 17~~ claim 18 wherein the pattern comprises a plurality of spaced objects.

Claim 27 (currently amended): A method for treating a surface of a layered polymeric structure suitable for forming a fluid container, the method of treating comprising:

providing a first non-molten sheet of a first polymeric material selected from the group consisting of polyolefins, ethylene and vinyl acetate copolymers, ethylene copolymerized with carboxylic acids having from 3 to 20 carbons and ester and anhydride derivatives thereof, ethylene and vinyl alcohol copolymers, polyamides, polyesters, polyvinyl vinyl chloride and elastomers;

providing a second non-molten sheet of a second polymeric material;

positioning the first non-molten sheet or the second non-molten sheet to overlap at least a portion of the other sheet to define an interference zone;

directing a ~~second~~-molten third polymeric material into the interference zone to adhere the first non-molten sheet to the second non-molten sheet to form the layered structure; and

texturing the first non-molten sheet to form a pattern on an outer surface of the first non-molten sheet utilizing a chill roll, the pattern being dimensioned to form fluid pathways on the outer surface to assist in removing fluid from the surface.

Claim 28 (canceled).

Claim 29 (currently amended): The method of ~~claim 28~~claim 27 wherein the second ~~sheet is a third~~-polymeric material is selected from the group consisting of polyolefins, ethylene and vinyl acetate copolymers, ethylene copolymerized with carboxylic acids having from 3 to 20 carbons and ester and anhydride derivatives thereof, ethylene and vinyl alcohol copolymers, polyamides, polyesters, polyvinyl vinyl chloride, PVDC and elastomers.

Claim 30 (original): The method of claim 29 wherein the step of texturing is carried out essentially simultaneously with the step of adhering the first sheet to the second sheet.

Claim 31 (canceled).

Claim 32 (currently amended): The method of claim 27 wherein the step of directing a ~~second~~-third polymeric material into the interference zone comprises the step of applying an adhesive material.

Claim 33 (currently amended): The method of claim 30 wherein the step of texturing comprises the step of contacting the first non-molten sheet with a surface having a pattern.

Claim 34 (original): The method of claim 33 wherein the surface is provided on a roll.

Claim 35 (currently amended): The method of claim 34 wherein the ~~roll is a~~surface is provided on the chill roll.

Claim 36 (currently amended): The method of claim 34 wherein the ~~roll is~~ surface is provided on a back-up roll.

Claim 37 (currently amended): The method of claim 33 wherein the surface is carried on ~~two rolls~~ a second roll.

Claim 38 (original): The method of claim 34 wherein the pattern extends outward from the surface of the roll.

Claim 39 (original): The method of claim 34 wherein the pattern extends inward from the surface of the roll.

Claim 40 (original): The method of claim 33 wherein the pattern is generally a checkerboard pattern.

Claim 41 (original): The method of claim 33 wherein the pattern is defined by a series of spaced protuberances.

Claim 42 (original): The method of claim 41 wherein the protuberances have a generally circular shape.

Claim 43 (original): The method of claim 41 wherein the protuberances have a polygonal shape.

Claim 44 (original): The method of claim 41 wherein the protuberances have an irregular shape.

Claim 45 (original): The method of claim 41 wherein the protuberances have a generally teardrop shape.

Claim 46 (original): The method of claim 41 wherein the protuberances have a first set of protuberances with a first shape and a second set of protuberances with a second shape different from the first shape.

Claim 47 (original): The method of claim 41 wherein the protuberances are generally S-shaped.

Claim 48 (currently amended): The method of claim 30 wherein the first non-molten sheet is a monolayer structure or a multiple layered structure.

Claim 49 (currently amended): The method of claim 30 wherein the first non-molten sheet is a monolayer structure.

Claim 50 (currently amended): The method of claim 30 wherein the first non-molten sheet is a multiple layered structure.

Claim 51 (original): The method of claim 50 wherein the multiple layered structure has a first layer and a second layer.

Claim 52 (original): The method of claim 51 wherein the first layer is a polyolefin.

Claim 53 (original): The method of claim 52 wherein the second layer is a barrier material.

Claim 54 (original): The method of claim 53 wherein the barrier material comprises ethylene vinyl alcohol copolymer or PVDC.

Claim 55 (original): The method of claim 51 wherein the first layer is an ethylene and α -olefin copolymer and the second layer is ethylene and vinyl alcohol copolymer.

Claim 56 (currently amended): The method of claim 48 wherein the second non-molten sheet is a monolayer structure or a multiple layered structure.

Claim 57 (currently amended): The method of claim 56 wherein the second non-molten sheet contains a layer of a polyamide or a layer of a polyester.

Claim 58 (currently amended): The method of claim 57 wherein the ~~second~~ third polymeric material is a polyolefin.

Claim 59 (currently amended): The method of claim 58 wherein the ~~second~~third polymeric material is a homopolymer of ethylene or a copolymer of ethylene and α -olefin having from 3 to 20 carbons.

Claim 60 (currently amended): The method of claim 59 wherein the ~~second~~third polymeric material is a homopolymer of polyethylene.